CLAIMS

What is claimed is:

1. A server system, comprising:

one or more computers;

an application executing on the computers to receive and process client requests; and

a constraint system to constrain operation of the application according to multiple different constraints, the constraint system comprising a hierarchy of constraint layers, with each constraint layer containing a set of one or more constraints that customize operation of the application.

2. A server system as recited in claim 1, wherein the hierarchy comprises a constraint layer that contains legally mandated constraints to constrain operation of the application according to legal principles.

3. A server system as recited in claim 1, wherein the hierarchy comprises a constraint layer that contains company-mandated constraints to constrain operation of the application according to preferences of a company that operates the application.

4. A server system as recited in claim 1, wherein the hierarchy comprises a constraint layer that contains customer constraints to constrain operation of the application according to preferences of customers.

5. A server system as recited in claim 1, wherein the hierarchy comprises a constraint layer that contains cultural constraints to constrain operation of the application according to cultural aspects.

6. A server system as recited in claim 1, wherein the hierarchy comprises a constraint layer that contains end user constraints to constrain operation of the application according to preferences of an end user.

7. A server system as recited in claim 1, wherein the constraint layers are organized within the hierarchy such that a first constraint layer limits a second constraint layer but the second constraint layer does not limit the first constraint layer.

8. A server system as recited in claim 1, further comprising a constraint resolver to resolve the constraint layers so that operation of the application is constrained by a sum of the constraints in the layers.

9. A server system comprising:

one or more computers; and

a multi-layer application executing on the computers to handle client requests, the multi-layer application comprising:

a problem-solving logic layer to process the client requests according to an associated problem domain, the problem-solving logic layer containing one or more execution models to perform various sets of tasks when processing the client requests, the problem-solving logic layer producing replies to the client requests;

a presentation layer to structure the replies produced by the problem-solving logic layer in a manner that makes them presentable on various client devices; and

a constraint hierarchy of multiple constraint layers, each constraint layer containing a set of one or more constraints that specify how the replies should be structured to customize the replies for specific sets of conditions.

10. A server system as recited in claim 9, wherein constraint layers can be selectively added or removed from the constraint hierarchy independently of other layers in the multi-layer application to produce different sets of constraints.

11. A server system as recited in claim 9, wherein the constraint hierarchy comprises a constraint layer that contains legally mandated constraints that constrain the presentation layer to structure the replies to comply with certain legal principles.

12. A server system as recited in claim 9, wherein the constraint hierarchy comprises a constraint layer that contains company-mandated constraints that constrain the presentation layer to structure the replies according to preferences of a company that operates the application.

13. A server system as recited in claim 9, wherein the constraint hierarchy comprises a constraint layer that contains customer-oriented constraints that constrain the presentation layer to structure the replies according to preferences of customers.

14. A server system as recited in claim 9, wherein the constraint hierarchy comprises a constraint layer that contains cultural constraints that constrain the presentation layer to structure the replies according to cultural aspects.

15. A server system as recited in claim 9, wherein the constraint hierarchy comprises a constraint layer that contains end user constraints that constrain the presentation layer to structure the replies according to preferences of end users.

16. A server system as recited in claim 9, wherein the constraint layers can be removed or added to modify the set of constraints imposed on structuring the replies.

17. A computer software architecture embodied on one or more computer-readable media, comprising:

a constraint hierarchy of multiple constraint layers, each constraint layer containing a set of one or more constraints that constrain operation of an application, the constraint layers being organized within the constraint hierarchy such that a first constraint layer limits a second constraint layer but the second constraint layer does not limit the first constraint layer; and

a constraint resolver to resolve the constraint layers so that operation of the application is constrained by a set of the constraints in the constraint layers.

18. A computer software architecture as recited in claim 17, wherein constraint layers are selectively added to or removed from the constraint hierarchy to form different sets of constraints on the operation of the application.

19. A computer software architecture as recited in claim 17, wherein the constraint hierarchy comprises a constraint layer that contains legally mandated constraints to constrain operation of the application according to legal principles.

20. A computer software architecture as recited in claim 17, wherein the constraint hierarchy comprises a constraint layer that contains company-mandated constraints to constrain operation of the application according to preferences of a company that operates the application.

21. A computer software architecture as recited in claim 17, wherein the constraint hierarchy comprises a constraint layer that contains customer constraints to constrain operation of the application according to preferences of customers.

22. A computer software architecture as recited in claim 17, wherein the constraint hierarchy comprises a constraint layer that contains cultural constraints to constrain operation of the application according to cultural aspects.

23. A computer software architecture as recited in claim 17, wherein the constraint hierarchy comprises a constraint layer that contains end user constraints to constrain operation of the application according to preferences of an end user.

24. A method comprising:

storing a hierarchy of constraints, each constraint being configured to constrain operation of a server application; and

evaluating an operation of the server application in view of the hierarchy of constraints to modify operation according to the constraints in the hierarchy.

25. A method as recited in claim 24, further comprising adding or removing constraints from the hierarchy to alter operation of the server application.

26. A method as recited in claim 24, wherein the hierarchy of constraints comprises constraints selected from a group of constraints comprising:

legally mandated constraints to constrain operation of the application according to legal principles;

company-mandated constraints to constrain operation of the application according to preferences of a company that operates the application;

customer constraints to constrain operation of the application according to preferences of customers;

cultural constraints to constrain operation of the application according to cultural aspects; and

end user constraints to constrain operation of the application according to preferences of an end user.

27. A method for operating a server application, comprising:

receiving requests from multiple clients;

processing the requests to produce replies;

structuring the reply to define how the reply will appear when presented at the client; and

constraining said structuring according to a set of one or more constraints to customize appearance of the reply, the constraints comprising:

legally mandated constraints to constrain appearance of the reply according to legal principles;

company-mandated constraints to constrain appearance of the reply according to preferences of a company that operates the application;

customer constraints to constrain appearance of the reply according to preferences of customers;

cultural constraints to constrain appearance of the reply according to cultural aspects; and

end user constraints to constrain appearance of the reply according to preferences of an end user.

28. A method as recited in claim 27, further comprising adding or removing constraints to change the set of constraints being applied to the structuring of the reply.

29. One or more computer-readable media comprising computer-executable instructions that, when executed, direct an application server to:

generate replies in response to client requests; and

structure the replies according to a hierarchy of constraints to customize the replies, the constraints comprising a combination of one or more following constraints:

legally mandated constraints to constrain appearance of a reply according to legal principles;

company-mandated constraints to constrain appearance of the reply according to preferences of a company that operates the application;

customer constraints to constrain appearance of the reply according to preferences of customers;

cultural constraints to constrain appearance of the reply according to cultural aspects; and

end user constraints to constrain appearance of the reply according to preferences of an end user.